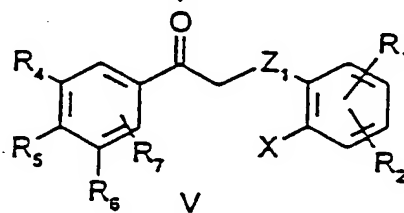
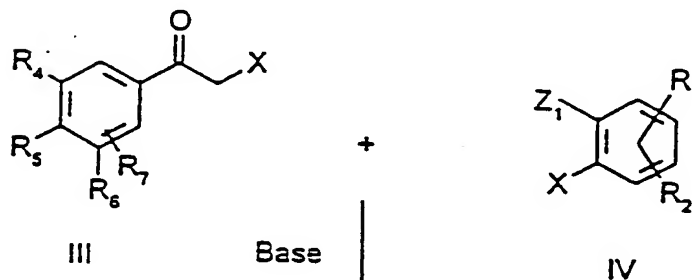
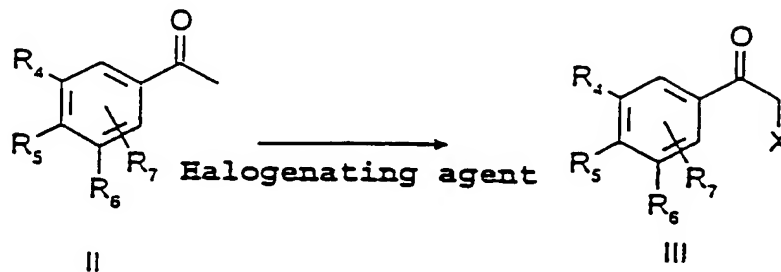
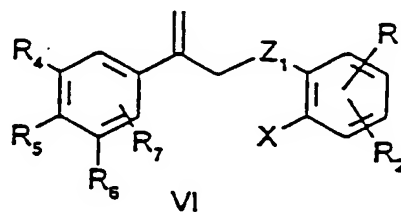


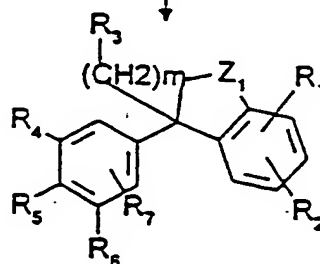
1/2



Phosphine or
phosphonate
Base



Metal catalyst,
electrophile

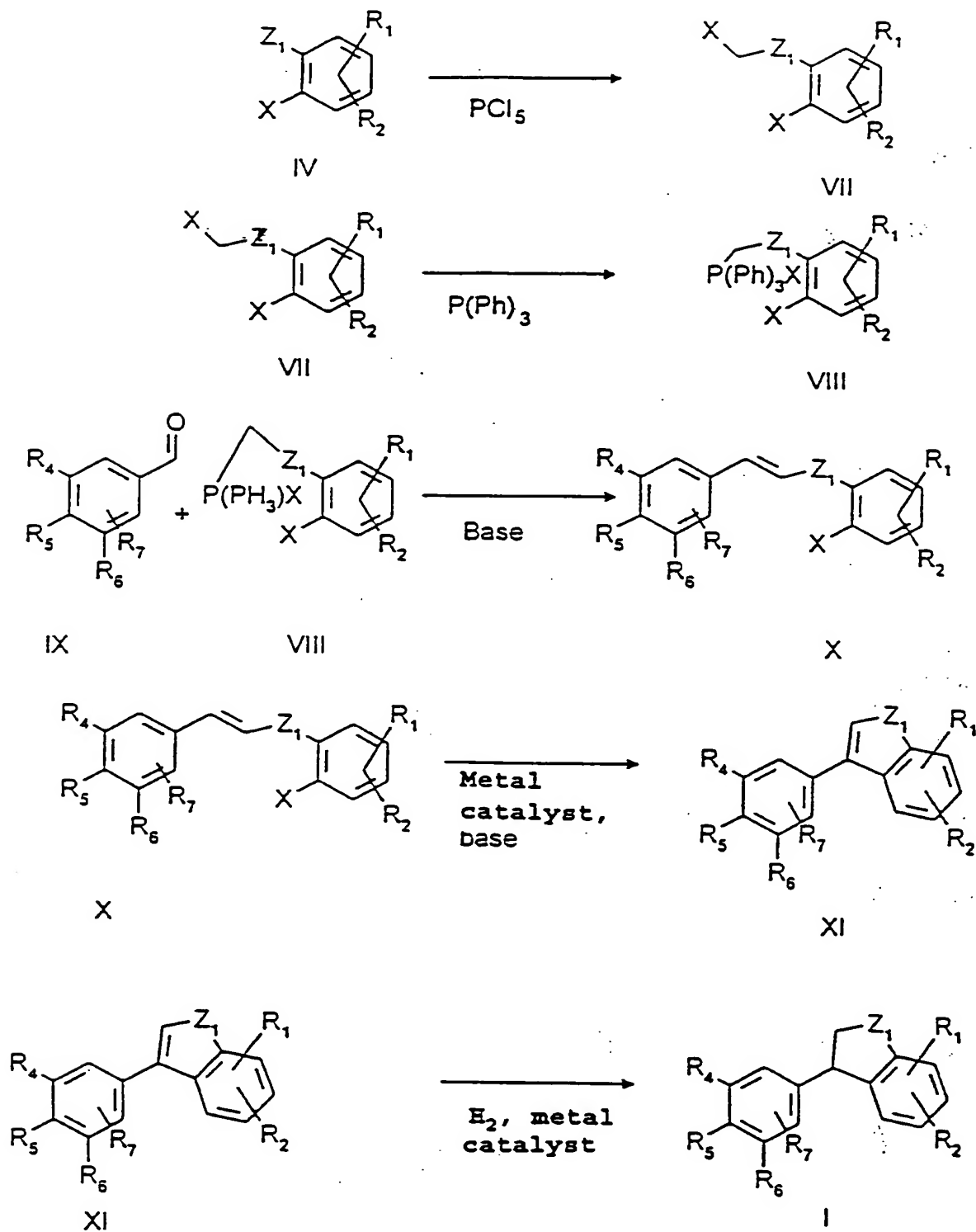


X: halogen

Z₁: hetero atom

FIGURE 1

2/2



X: halogen
Z₁: hetero atom

FIGURE 2